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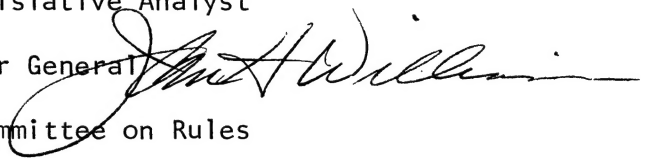
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M E M O R A N D U M

DATE: August 5, 1977

TO: Mr. A. Alan Post, Legislative Analyst

FROM: John Williams, Auditor General 

SUBJECT: Response to Senate Committee on Rules
Resolution No. 451
Relative to the Capitol Restoration

We are herewith transmitting our draft report addressing issues raised in Senate Committee Resolution No. 451 of 1977 and in Assemblyman Papan's letter to you dated March 25, 1977. We have not addressed issues related to:

- Historical significance of the restored State Capitol
- Participation of the Preservation Technology Group, and
- Procedures for access to pertinent information on the project.

INTRODUCTION

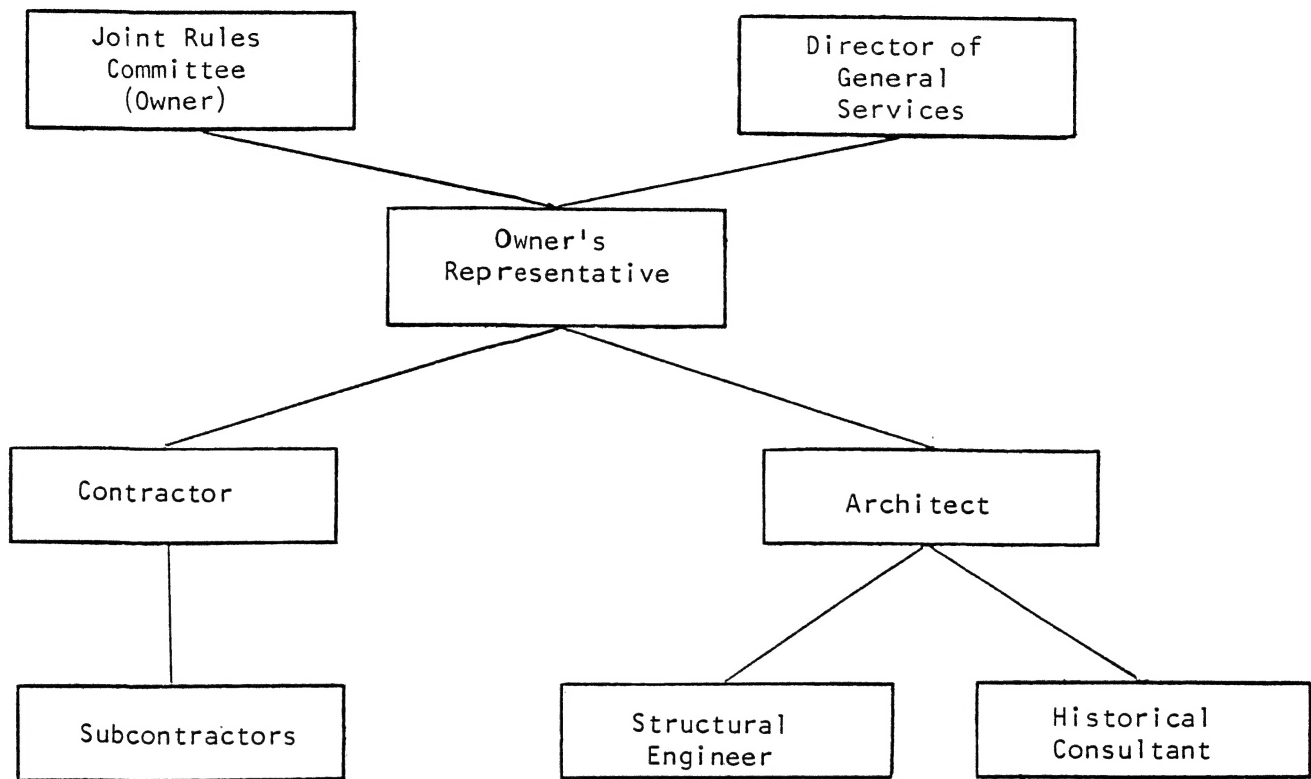
In response to the Senate Committee on Rules Resolution No.451 of 1977, the Joint Legislative Audit Committee authorized the Auditor General in cooperation with the Legislative Analyst to examine procedures to restore the west wing of the State Capitol. This report addresses issues raised in the resolution and in Assemblyman Papan's letter to the Legislative Analyst dated March 25, 1977. Issues in Assemblyman Papan's letter were addressed upon direction from the Legislative Analyst's Office.

I. BACKGROUND

A. Principal Provisions of Statutes

Chapter 246, Statutes of 1975 provides for restoration or rehabilitation of the west wing of the State Capitol. The statute was enacted to go into effect immediately since the west wing had been determined by the State Architect to be structurally unsafe and in immediate need of restoration.

According to the statute, the restoration was to be authorized by the California Legislature's Joint Rules Committee and administered and supervised by the Department of General Services. In accordance with a contract between the two parties, the Department of General Services appointed an "Owner's Representative" to represent the Joint Rules Committee and the Department. The resulting organizational structure is shown on the following page.



Many project decisions, however, are made through a consensus of the "Design Team" which consists of the:

Architect, Chairman of the Design Team
Historical Consultant
Structural Engineer
Contractor, and
Owner's Representative

Representatives of the Joint Rules Committee normally monitor the Design Team's weekly meetings.

Any work done in connection with the reconstruction or restoration is exempt from the State Contract Act. Such work, however, is subject to competitive bidding except where determined to be impractical or unfeasible by joint action of the State Architect, the State Public Works Board and the Joint Rules Committee.

In addition, the statutes require that the contractor and the architect be selected on the basis of their qualifications and experience in restoration and reconstruction of historic buildings.

B. Budget

Chapter 246, Statutes of 1975 appropriated \$42 million for restoration of the west wing. Through June 1977, \$10,533,462 had been disbursed by the State Controller.

The \$42 million appropriation includes costs for:

Contractor's preliminary cost estimate	\$36,257,376
Architect's basic fee	3,350,000
Architect's maximum reimbursed costs excluding overtime	250,000
Temporary Legislative Chambers (approximate)	1,100,000
Department of General Services Management Fee (maximum)	<u>985,000</u>
	<u>\$41,942,376</u>

The contractor's preliminary cost estimate does not include:

- Landscaping, site concrete work, repair of the

surrounding area presently being used for construction,
and replanting of grass or shrubs which may have been
damaged during the construction process

- Security devices
- Carpeting
- Drapes
- Chandeliers and special lighting fixtures
- Furniture and furnishings.

The Owner's Representative advised us that many subcontracts included in the contractor's preliminary cost estimate have not been awarded as a result of the pending court action described below. This delay may result in increased costs due to inflation.

C. Legal Actions

On January 14, 1977, a public interest law firm brought legal action against the State opposing some of the terms of the contract and the state procedures used to approve the contract. The plaintiffs question whether the contract was approved or authorized by the Legislature's Joint Rules Committee, and whether the Chairman of the Committee could be delegated the authority to approve the contract. On June 2, 1977 the Legislature's Joint Rules Committee passed a resolution formally ratifying the original contract and its related provisions.

II. ISSUES AND RECOMMENDATIONS

A. The Selection of Statutory Provisions to Govern the Project

Several factors contributed to the drafting of the statutory provisions to govern the project, including:

- Federal experience with restoration projects and federal officials' recommendations
- Restoration requirements and the need for specially skilled workmen
- Lack of the original State Capitol construction plans, and
- Anticipated increases in construction costs.

Prior to enactment of Chapter 246, Statutes of 1975 and execution of the contract for restoration of the west wing of the State Capitol, state officials made trips to Washington, D.C. to determine the Federal Government's methods to contract restoration projects. The Federal Government has restored the United States Capitol, the original U.S. Senate Chambers and the original U.S. Supreme Court Chambers.

State officials reported that the Federal Government exempted such projects from normal construction project competitive bidding requirements because of restoration requirements, the need for specially skilled workmen and the uncertain scope of the work.

Federal officials recommended that the contractor and the architect for restoration and reconstruction of the State Capitol be selected on the basis of proven qualifications and be compensated on the basis of a fixed fee plus costs.

B. Awarding the Contract

In this section we address only the procedures used by the Joint Rules Committee to select the contractor, irrespective of record of approval by the Joint Rules Committee at the time the contractor was selected.

In selecting the contractor, the Joint Rules Committee:

- Advertised for interested contractors to submit qualifications
- Evaluated the qualifications submitted, and
- Invited four contractors to make presentations to the Joint Rules Committee.

Minutes of the Joint Rules Committee's selection are unavailable. However, all officials interviewed, including the former Chairman of the Joint Rules Committee and the owner's representative, stated that cost was not a consideration. The contractor's fixed fee of \$1,650,000, which is substantially profit for management of the project, and other terms of the contract, such as services to be performed, costs to be borne by the contractor, payment methods, etc., were determined after

the contractor was selected. Evaluation sheets provided by the owner's representative show that several firms were nearly equally qualified to do the job. Therefore, cost should have been a consideration.

The contractor's fee of \$1,650,000 is slightly higher than the top of the range indicated in a federal publication.^{1/} The contractor's fee is 4.55 percent of the contractor's preliminary cost estimate of \$36,257,376. The federal publication indicates that normally a lump sum fee, ranging from 2 to 4 percent of the estimated construction cost is agreed upon as total compensation for contract services.

Included in the preliminary cost estimate is the Guaranteed Maximum Structural Sum (GMSS) of \$14,993,915, other reimbursable costs of \$19,613,461 and the contractor's fee of \$1,650,000. The contract provides that the contractor will perform the structural portion of the work primarily with his own forces for reimbursement not to exceed the GMSS. The State and the contractor share the savings on a pre-determined basis should the cost of the work be less than the GMSS. The State has agreed to reimburse the contractor for nearly all his costs on all other work.

At this time, 20 months after the contractor was selected, it is unrealistic to try to determine the fee other equally qualified contractors would have charged. We have no basis for comparison.

^{1/} "The GSA System for Construction Management"
April 1975 Revised Edition

If subsequent legislation allows the State to select a contractor to manage future projects, the contractor should be selected under a two-step procurement procedure similar to that frequently used by the Federal Government: (1) request for qualifications, then (2) ^{1/}price. The Federal Government suggests that the offeror with the highest evaluated score for qualifications, together with all other offerors within a competitive range, normally no fewer than five, be invited to submit price proposals, management plans and resumes of key personnel. This would require the State to draft the contract provisions before the contractor is selected: a procedure which would place the State in a better bargaining position.

C. The Guaranteed Maximum Structural Sum (GMSS)

Several persons, including the State Architect and the Auditor General, recommended that the State perform or obtain an in-depth analysis of the reasonableness of the contractor's estimate for the GMSS. In June 1976 the Joint Rules Committee hired two firms, based upon recommendations of the owner's representative, to provide independent cost estimates. One independent estimator, Gosliner/McLean, was retained later to assist the owner's representative in negotiating the GMSS. The GMSS was approved by the State Public Works Board on September 27, 1976. An amendment to the contract stating the amount of the GMSS, inclusions, exclusions and assumptions was executed

^{1/} "The GSA System for Construction Management"
April 1975 Revised Edition

on February 7, 1977. However, detailed audit analysis was never performed to assure that the GMSS, with its profit incentive, was sound. Such an analysis would include confirmation of vendor and subcontractor quotes to the prime contractor, analysis of overhead allocations, and an evaluation of the basis for provision of contingency allowances.

A summary of the estimate for the GMSS follows:

SUMMARY OF ESTIMATE FOR GUARANTEED MAXIMUM STRUCTURAL SUM

STATE CAPITOL RESTORATION

Prepared by Continental Heller Corp./Swinerton & Walberg Co.
Dated September 24, 1976

<u>Item</u>	<u>Labor</u>	<u>Material</u>	<u>Subcontract</u>	<u>Total</u>
General Requirements	\$1,730,000	\$ 750,000	\$ 1,203,000	\$ 3,008,000
Equipment Salvage			(140,000)	(140,000)
Scaffolding (Pole)	21,323	27,309	91,097	139,729
Scaffolding (Morgan)			39,000	39,000
Demolition	1,500,000	34,530	223,788	1,758,318
Demo. Salvage			(330,000)	(330,000)
Earthwork	54,370	410	24,454	79,234
Shoring and Dewatering	3,800	3,600	3,600	11,000
Forms-Concrete & Gunite	790,000	245,085	6,520	1,041,605
Slab Forming System			297,540	297,540
Rebar			1,176,841	1,176,841
C.I.P. Concrete	217,599	574,489	48,153	840,241
Gunite (Place)			603,496	603,496
Gunite (Clean, Test & Prep)	89,778	1,130	6,606	97,514
Coring & Cutting			247,000	247,000
Brick Masonry			34,966	34,966
Granite Masonry			58,580	58,580
Structural Steel)				
Metal Deck)	29,200	3,320	359,987	392,507
Misc. Iron)				
Wall Anchors	97,070	42,823	16,830	156,723
Struct. Brace & Shore	97,849	22,743	839,220	959,812
Downspouts & Drains			14,738	14,738
 SUB TOTAL	 \$4,630,989	 \$1,030,439	 \$4,825,416	 \$10,486,844
<u>LABOR BURDEN</u>				
1. Demolition - 56% x 1,500,000				840,000
2. Other - 51% x 3,131,349				1,596,988
 <u>LABOR ESCALATION</u> 10%				 <u>707,000</u> ^{2/}
Sub Total				\$13,630,832
Contingency @ 10%				<u>1,363,083</u>
TOTAL				<u>\$14,993,915</u> ^{1/}

^{1/} Through June 14, 1977 there were 91 change proposals, of which 15 were acted upon, resulting in a probable net increase of \$92,293 in the guaranteed maximum structural sum. However, the change order document designating final approval of concerned parties had not been approved as of July 15, 1977.

^{2/} The labor escalation of \$707,000 is 10% of \$7,067,977, which is composed of \$4,630,989 of labor cost and labor burden of \$840,000 and \$1,596,988.

We audited the GMSS to the extent feasible. The total amount of the GMSS is \$14,933,915 before change orders. The contractor shares in savings resulting from actual cost being less than that amount and will absorb cost in excess. The contract does not have a provision that would require the contractor to adjust the GMSS for any overstatement or discrepancies, due to errors in estimating cost, for individual items which are part of the total cost. The following is a summary of our findings, conclusions and observations.

- The GMSS exceeds the final independent estimates by \$1.1 million and \$3.5 million before change orders. Reconciliations of various estimates and the GMSS are shown beginning on page 16.
- The final selection of independent estimators was made by the owner's representative. In our opinion, in employing a specialist, such as an estimator to perform services, it is important that the selection be made by someone independent of the project. This gives third parties who rely on the specialist some assurance that the principals, in this case the contractor, owner's representative and estimator, are dealing objectively.
- There is no official transcript nor record of the negotiations which describes the rationale to accept or reject contractor estimates. This complicates post-audit analysis to determine what data the State relied upon during negotiations. The Federal Government requires

that its agencies maintain detailed records of such negotiations to explain differences between the government's initial price objective and the final negotiated price, and to serve as a basis for post-audit.

- The GMSS contains a labor burden rate which erroneously includes union benefits to nonunion members of the contractor's management team. With the addition of 10 percent for labor escalation and an additional 10 percent for overall contingency, this resulted in an overstatement of the GMSS by approximately \$220,000. A contractor's representative acknowledged the overstatement but stated that the \$707,000 for labor escalation would probably prove to be understated, thus offsetting the error in estimating labor burden. Although errors and inaccurate estimates may ultimately be offset, we cannot make such forecasts. However, should these contingencies not be realized, there is no provision for downward adjustment of the GMSS. Hence, the incurrence of cost less than the GMSS due to unrealized contingencies would result in windfall profit to the contractor.

The Auditor General would have detected and made an adjustment for the \$220,000 error if he had been engaged to conduct an in-depth analysis of the GMSS before the contract was final. In March 1976 the Auditor General recommended that such an analysis be made.

- In some instances the contractor does not have complete support for detailed calculation of the GMSS.
- The contractor's risks related to work to be accomplished under the GMSS relate primarily to:

Labor quantities:

Labor subtotal (p. 10)	\$4,630,989	
Add: Labor Burden		
Demolition (p. 10)	840,000	
Other (p. 10)	<u>1,596,988</u>	
		\$7,067,977
Less: Labor included in general requirements (p. 10)	1,730,000 ^{1/}	
Labor Burden on general requirements (\$1,730,000 x .51)	<u>882,300</u>	
		<u>2,612,300</u>
		4,455,677

Material prices:

Material subtotal (p. 10)	1,030,439	
Less Material subcontracts with firm quotes (C.I.P. Concrete)	<u>521,899</u>	
		<u>508,540</u>
Total risk-cost items		<u><u>\$4,964,217</u></u>

^{1/} Labor and labor burden related to employees who are to be charged to the "Structural Work" for 143 weeks.

Material quantities are determined from the drawings and specifications and, therefore, can vary because of inaccuracies in determining quantities and waste. A separate amount of \$707,000 is included in the GMSS for escalation in the labor cost. Generally there appears to be little risk on the \$4,825,416 estimated as subcontracts as they were signed shortly thereafter or represent items that had already been purchased.

The GMSS also includes a "contingency" of \$1,363,083 which is 10 percent of all costs, including labor escalation, in effect, a "contingency upon a contingency." The contingency is to provide the contractor with a hedge against estimated costs which comprise the contractor's risk. As shown below, approximately \$866,000 of the contingency results from a 10 percent factor applied to costs on which the contractor has little risk.

GMSS subtotal before contingency (p. 10)	\$13,630,832
Less total risk-cost items (p. 13)	<u>4,964,217</u>
Cost of items with little risk	\$ 8,666,615
Contingency factor	10%
Contingency resulting from contingency factor applied to costs on which the contractor has little risk	\$ 866,662

Although some parties contend that the contingency may be of any amount which is agreed to, we believe that it is inappropriate to apply the same contingency factor to risk items and items of minimal risk.

Reconciliation of the GMSS
and Independent Estimates

The independent estimators and the contractor prepared estimates of the GMSS. It has been reported by the news media that certain estimates could not be located; however, to our knowledge no estimates are missing.

We made comparisons and analyses of the final estimates and an incomplete estimate of the independent estimators and the GMSS. The estimates are as follows:

<u>Firm Name</u>	<u>Date</u>	<u>Amount</u>
Gosliner/McLean	September 20, 1976	\$ 9,031,675 ^{1/}
Gosliner/McLean	September 21, 1976	\$14,369,795
Lee Saylor, Inc.	October 12, 1976	\$11,964,685

Differences Between Gosliner/McLean's
Incomplete Estimate of \$9 Million and
Their Estimate of \$14.4 Million

Gosliner/McLean's incomplete estimate of \$9 million and their later estimate of \$14.4 million are summarized as follows:

^{1/} A representative of the firm of Gosliner/McLean has advised us that this was an incomplete estimate.

	Incomplete Estimate Dated <u>September 20</u>	Estimate Dated <u>September 21</u>	Difference Increase or (Decrease)
General Construction Work			
South Wing	\$ 940 ,458	\$ 2,215,448	\$1,274,990
North Wing	1,031,857	2,576,273	1,544,416
Rotunda	951,468	1,811,881	860,413
General Requirement	<u>2,798,365</u>	<u>3,052,838</u>	<u>254,473</u>
Total General Contractor's work	5,722,148	9,656,440	3,934,292
Subcontractor's work	<u>3,309,527</u>	<u>3,747,711</u>	<u>438,184</u>
Estimated cost before Contingency	9,031,675	13,404,151	4,372,476
Contingency on General Contractor's work - 10%	<u>-0-</u>	<u>965,644</u>	<u>965,644</u>
Grand Total	<u>\$9,031,675</u>	<u>\$14,369,795</u>	<u>\$5,338,120</u>

Based upon our analysis, the major differences between Gosliner/McLean's incomplete estimate and their final estimate can also be presented as shown following:

Gosliner/McLean's incomplete estimate
dated September 20, 1976

\$ 9,031,675

Add:

Increase in labor cost	\$2,967,664	
Increase in material cost	712,155	
Additional subcontracts	438,184	
Contingency	965,644	
Increased general requirements	<u>254,473</u>	
Total increase in estimate		<u>5,338,120</u>
Gosliner/McLean's estimate of September 21, 1976		<u>\$ 14,369,795</u>

A representative of Gosliner/McLean advised us that they normally date their workpapers on the date they complete an estimate. We could obtain no definite explanation concerning the closeness of the dates on the incomplete estimate dated September 20, 1976, and the final estimate dated September 21, 1976. We were advised, however, that the incomplete estimate may have been dated when it was filed. The September 21, 1976 estimate was forwarded to the owner's representative with a cover letter of the same date.

There appears to be confusion as to which of Gosliner/McLean's estimate was used in negotiation with the contractor. The owner's representative indicated that the negotiation started with the estimator at \$10 million and the contractor at \$17 million. It was stated that the estimates of Gosliner/McLean and the contractor were not comparable item by item, so negotiations were made using the contractor's estimate. After negotiations were completed on September 24, 1976, Gosliner/McLean revised its estimate to \$14.4 million which carries the September 21, 1976 date. As records were not kept, the starting point for negotiations is in conflict.

In comparing the two Gosliner/McLean estimates, it is apparent that the estimate dated September 21, 1976 includes \$965,644 for contingency on general construction work, but the incomplete estimate dated September 20, 1976 contains no amount for contingency.

A representative of Gosliner/McLean advised us that they had initially made some preliminary cost estimates of unit prices. The original estimate dated September 20, 1976, was based on the assumption that bricks could be removed in multiples. Subsequent observations and a meeting with the owner's representative and his assistant convinced Gosliner/McLean that the structure's unsafe condition required that the bricks be removed individually. This change in the method of demolition required an increase in labor cost; which in part accounts for the increase in the September 21, 1976 estimate. The Gosliner/McLean representative stated they did not meet with the contractor prior to the submission of the \$14.4 million estimate.

Subcontract amounts, general requirements amounts and job sequencing were provided to the estimators by the owner's representative. We were advised and documents show that the major increase in subcontracts resulted from a change relating to the structural bracing of the building's exterior shell during restoration. The incomplete estimate and the final estimate reflect little difference in the quantities of labor and materials to be used. However, unit prices on the \$14.4 million estimate were substantially higher than on the \$9 million incomplete estimate. The largest increase in unit price occurred in demolition. The dollar amounts are shown as follows:

Demolition
Labor and Material

	Incomplete Estimate dated September 20 <u>(\$9 Million)</u>	Estimate dated September 21 <u>(\$14.4 Million)</u>	<u>Increase</u>
South Wing	\$174,023	\$ 721,634	\$ 547,611
North Wing	161,519	811,134	649,615
Rotunda	<u>144,690</u>	<u>324,667</u>	<u>179,977</u>
	<u>\$480,232</u>	<u>\$1,857,435</u>	<u>\$1,377,203</u>

Differences Between Lee Saylor, Inc.'s
Estimate and Gosliner/McLean's \$14.4
Million Estimate

Gosliner/McLean's \$14.4 million estimate and Lee Saylor's
estimate are summarized below.

	<u>Estimate of</u> <u>Lee Saylor Inc.</u>	<u>September 21</u> <u>Estimate of</u> <u>Gosliner/McLean</u>	<u>Difference</u> <u>Increase</u> <u>or</u> <u>(Decrease)</u>
General Construction Work			
South Wing	\$1,598,561	\$2,215,448	\$ 616,887
North Wing	1,733,080	2,576,273	843,193
Rotunda	1,224,409	1,811,881	587,472
General Requirements	<u>2,913,926</u>	<u>3,052,838</u>	<u>138,912</u>
Total General Contractor's Work	7,469,976	9,656,440	2,186,464
Total Subcontractor's Work	<u>3,747,711</u>	<u>3,747,711</u>	<u>-0-</u>
Estimated Cost Before Contingency	11,217,687	13,404,151	2,186,464
Contingency on General Contractor's Work - 10%	<u>746,998</u>	<u>965,644</u>	<u>218,646</u>
Grand Total	<u>\$11,964,685</u>	<u>\$14,369,795</u>	<u>\$2,405,110</u>

Based upon our analysis, the major differences between the two independent estimates can also be presented as follows:

Estimate of Lee Saylor, Inc. (Includes labor burden)		\$11,964,685
Add:		
Labor cost (Includes labor burden separately stated in Gosliner/McLean's estimate)	\$1,838,412	
Labor escalation cost	286,876	
Contingency	218,646	
General Requirements	<u>128,912</u>	2,482,846
Deduct:		
Material Costs		<u>77,736</u>
Estimate of Gosliner/McLean		<u><u>\$14,369,795</u></u>

Lee Saylor, Inc.'s \$11.9 million estimate and Gosliner/McLean's \$14.4 million estimate are otherwise closely parallel except for labor costs and related labor escalation and contingency.

Differences Between Gosliner/McLean's
\$14.4 Million Estimate and the GMSS

The Gosliner/McLean firm was retained to assist the Owner's Representative in negotiating the GMSS with the contractor. Gosliner/McLean's final estimate was \$14.4 million. The major differences between the Gosliner/McLean estimate and the negotiated GMSS are as follows:

Estimate of Gosliner/McLean (Excludes salvage allowance)	\$14,369,795
Add:	
Increase in General Requirements	\$1,098,692 ^{1/}
Increase in Subcontracts not Included in General Requirements	344,685
Increase in Contingency	<u>397,439</u> 1,840,816
Deduct:	
Decrease in Contractor's Labor and Materials on Other Work	<u>746,696</u>
GMSS Before Salvage Allowance	<u><u>\$15,463,915</u></u> ^{2/}

The rationale for the increase from \$14.3 million, Gosliner/McLean's estimate, to \$15.4 million, the GMSS before salvage allowance, is not known as the negotiator did not keep a record of the negotiations. However, the increase of \$1,098,692 consists primarily of labor burden and labor escalation applied to labor included in the GMSS general requirements.

^{1/} This amount includes applicable labor burden and labor escalation but excludes applicable contingency.

^{2/} The GMSS is \$14,993,915 which is net of an allowance for salvage of \$470,000.

The contractor's estimated cost of work to be performed under the GMSS was \$15,463,915 before change orders. Negotiated salvage allowances amounting to \$470,000 reduced the GMSS to \$14,993,915.

CONCLUSION

The GMSS and the procedures used to determine it raise many questions and concerns. We noted several instances where procedures could have been improved before the terms of the GMSS were agreed upon.

Both independent estimators maintain that their estimates are valid; but the contractor, viewing the project from a different perspective, desired and obtained a limit of \$1.1 million more than the highest independent estimate before change orders and salvage allowance. As we have shown, approximately \$220,000 of the GMSS is defective. Furthermore, approximately \$866,000^{1/} represents inappropriate contingency allowances. The absence of negotiation records precluded us from making an analysis of the State's rationale for accepting an increase in GMSS. We can only assume that the State was not aware of deficiencies in the GMSS.

If future contracts call for a guaranteed maximum amount, the State should consider the following measures to avoid the control weaknesses we found in determining the GMSS for the Capitol Restoration Project:

^{1/} See p. 14

- Audit the estimate of the guaranteed amount before it is agreed upon.
- Adjust the individual components making up the total based upon a post audit review.
- Formalize procedures to:

Provide that independent estimators, if any, be selected by someone independent of the project.

Provide the independent estimators with general requirements and other information necessary to make the estimates.

Record the progress of negotiations, representations and compromises made by the contractor and the State during negotiations.

Reconcile the GMSS to the independent estimates and explain the differences.

Base contingency allowances, if any, only on costs for which the contractor bears a risk.

D. Awarding Subcontracts

By provisions of the contract between the Joint Rules Committee and the prime contractor, certain subcontract work is exempt from competitive bidding. The initial 53 awarded subcontracts were exempt. However, the prime contractor obtained informal price requests before awarding more than half of the subcontracts. An average of 2.8 price estimates were obtained for each subcontract.

A substantial portion of the remaining work to complete the Capitol Restoration is required to be competitively bid. This includes work related to:

- The building's mechanical and electrical components
- Architectural components, and
- Landscaping.

Competitive Bid Procedures

On June 24, 1977, amendments to the competitive bid procedures were approved by the Joint Rules Committee. The amendments require:

- Public advertising for bidders to prequalify
- Prequalification of prospective bidders based upon approval of the owner's representative and an

independent consultant employed by the Joint Rules Committee and by either the contractor or the architect

- A minimum of three prequalified bidders
- Obtaining sealed bids
- Holding a public bid opening, and
- Awarding of the subcontract to the lowest responsible bidder.

Minority Business Participation

The contract requires the prime contractor to include at least 20 percent minority business participation in all subcontract proposals over \$250,000. As used in the contract, the term "minority business enterprise" means a business owned at least 50 percent by minority group members. The minority business participation may include:

- A joint venture between a nonminority and minority subcontractor
- Sub-subcontracts to minority-owned specialty contractors, or
- Materials purchased from a minority supplier.

Four of the subcontracts issued to date have included the minority business enterprise provisions. These contracts total \$2,752,111. An average of 2.5 price estimates were obtained on each of these subcontracts.

In addition to the general minority provision, one of the subcontracts indicates the minority supplier who is a party to the contract. The other subcontracts do not specify how the general minority provision is to be met.

E. Accounting Controls

Accounting controls include the organization plan and all methods and procedures to safeguard assets and reliability of financial records. Accounting control is customarily attained by dividing duties so that data flows from one person to another in a manner which assures the accuracy and propriety of the transaction.

The Organization Plan

Two widely used methods of administering construction projects are:

- Traditional construction administration in which a contract is awarded to building the project as designed for a fixed fee, and

- Phased construction methods in which a contractor is selected to assist the owners and the architect-engineer in managing the project and contracting with subcontractors for phased construction overlapping the design phase. The contractor is reimbursed his costs and a fixed fee for his services.

Either method when used alone can include adequate accounting and audit safeguards.

The Capitol Restoration Project combines elements of traditional construction administration and construction management methods in one job. The structural portion of the work is required to be done primarily with the contractor's own forces for a guaranteed maximum sum. The State and the contractor share savings below that amount. On the larger portion of the job, payments are made for specific cost incurred.

The combination of methods presents some inherent control weaknesses that are not easily overcome. For example, assuming the contractor completes the structural portion of the work for a cost less than the GMSS, he could benefit by 20 to 33-1/3 percent of any costs which may be improperly or erroneously charged to "other work" which is cost reimbursable, rather than to work included in the GMSS. If the contractor completes the structural portion of the work at a cost in excess of the GMSS, he could benefit by 100 percent of any costs which may be improperly or erroneously charged to "other work" rather than work included in the GMSS.

Weaknesses in Procedures
to Account for Costs

The rules governing the cost allocations between the "structural work" (GMSS) and "other work" were made after a significant amount of cost had been incurred. Although the Capitol Restoration Project has been underway for more than a year, the GMSS was not amended into the contract until February 7, 1977 which provided the bases for the delineation of "structural work" and "other work." In May 1977, costs incurred and identified as "structural work" amounting to \$1,029,905 were retroactively transferred from "other work" to "structural work." At that time, total costs of the Capitol Restoration Project amounted to \$4,418,855.

Our review of procedures used to divide costs between the "structural work" and "other work" revealed that:

- During the first ten months reliance was placed on the contractor's segregation of cost. Due to the lack of state inspections, it was impossible for the State to verify the appropriateness of the intra-project cost transfers.
- Only the contractor's representative and the owner's representative know enough about the job to assign certain costs to "structural work" or "other work."

Contractor's Labor Force

Currently, the owner's representative tours the job approximately twice a week and meets with the contractor's foremen to agree as to which of the two projects the contractor's labor force is working on at that time. This is recorded by the owner's representative. Later, when the contractor submits his payroll claim, the owner's representative verifies the contractor's charges to "structural work" or "other work" based upon his recorded observations. As the contractor may move employees between "structural work" or "other work," we believe that daily verification of assignments is necessary.

Invoices

Invoices are originally charged to "structural work" or "other work" by the contractor's staff. Although the Department of General Services' internal audit unit audits each invoice before payment, they have not verified that all invoices are properly charged to "structural work" or "other work." Some common items purchased, such as lumber, may be used on either the "structural work" or "other work." The owner's representative reviews the charges based upon his knowledge of the job. We believe that the internal audit unit should also verify that all costs are properly charged to "structural work" or "other work."

The System of Signature and Authorizations

The contractor's progress billings are approved under the following system of signatures and authorizations.

- All invoices to be included in the contractor's weekly progress billings are reviewed by the Department of General Services Performance Appraisal Review Division to assure that procedures were followed and certain supporting documents exist, and to test the arithmetic. If the supporting records are inadequate, the invoice is withheld from the contractor's progress payment. Each invoice is approved and initialed by the auditor.
- The contractor then submits the progress billings to the State. A contractor's representative signs the claim schedule certifying:

I hereby certify under the penalties of perjury that on the claim hereto attached, the services therein mentioned were actually rendered and the money was actually paid, or is to be paid, as therein mentioned, solely for the benefit of the State. I have not knowingly violated any of the provisions of Article 4 of Division 4 of Title 1 (Sections 1090 to 1097, incl.) of the Government Code.

- However, Sections 1090 to 1097 of the Government Code cited in the certification statement relate only to prohibitions applicable to specified public officers such as members of the Legislature, state, county,

district and city officers and employees. The Sections do not relate to the contractor's representative.

- The owner's representative reviews the progress billings and sometimes initials or "OK"s the transmittal letter.
- The claim schedule is then approved by the Chief Administrative Officer, Joint Rules Committee, based primarily upon the initial or approval of the owner's representative.

The contract also requires the contractor to submit certified payrolls and invoices showing the contractor's reimbursable costs. An appropriate certification statement should be developed for the contractor to sign each week.

As a matter of good business practice the owner's representative should certify to the Joint Rules Committee, Chief Administrative Officer, that he believes the goods or services were received and the monies are to be spent in accordance with the contract and the controlling statutes.

We recommend that the Director of General Services:

- Direct the Performance Appraisal Review Division to:

Verify that all costs are properly charged between "structural work" and "other work" and

Record cost classifications which cannot be verified based upon the guidelines and records kept by the owner's representative, and develop procedures to verify material charged to "other work."

Designate an employee to account for the time distribution of the contractor's labor force between "structural work" and "other work" on a full-time basis.

We further recommend that the Joint Rules Committee:

- Require the contractor to sign an appropriate certification statement when submitting reimbursable costs to the State for payment, and
- Require the owner's representative to certify that payments to the contractor are in accordance with terms of the controlling statutes and the contract.

F. Audits

In this section we address audit coverage and the Auditor General's involvement in the Capitol Restoration Project.

Audit Coverage

The Department of General Services, Performance Appraisal Review Division has performed audits of the Capitol Restoration Project to date. We were advised that the Division is not required by statute or the contract to audit the project; however, they have conducted the audits to assist the Director of General Services who is charged with administering the project. The Department of Finance, Audits Division reviewed the project early in 1977 but did not issue a report. Until now the Auditor General has not been directed to review the project.

In addition to the pre-disbursement audits described on page 31, the Department of General Services has made the following audits.

- Review of payroll distributions (no formal report)
- Reconciliations of the State Controller's record of disbursements and project records as of:
 - September 30, 1976
 - December 31, 1976
 - March 31, 1977
 - April 30, 1977
 - May 31, 1977, and
 - June 30, 1977

(Separate reports were issued to the Joint Rules Committee),

- Periodic review of the contractor's Accounts Payable to determine that the contractor's periodic payments to vendors and subcontractors are being met on a current basis (no formal report),
- Review of contractor's overhead rates on internal management charges (no formal report),
- Review of the inventory control system established for fixtures, materials, etc., removed from the Capitol for remanufacture, repair or restoration,
- Physical inventory of all tools and equipment on July 15 and 16, 1977, and
- Reviews of many small miscellaneous issues which have come to their attention through day-to-day contact with the job. (Generally no formal reports.)

The Performance Appraisal Review Division has scheduled a review of the controls over the disposition of tools and equipment, as well as inventory control over salvage items to be sold, including accounting for the receipts from the sale of salvage.

Except as recommended on page 3, we believe the Department of General Services, Performance Appraisal and Review Division is providing appropriate audit coverage considering the control

weaknesses. Their efforts should be continued. However, we recommend that the Division issue written reports or memorandums of future audits. We also recommend that the Joint Rules Committee provide for an independent post audit of the project annually until it is completed.

The Auditor General's Involvement to Date

On March 31, 1976, the Auditor General issued a letter to the Chairman of the Joint Legislative Audit Committee regarding potential deficiencies in the contract awarded to restore the Capitol. The Auditor General recommended that the State perform an in-depth analysis of the reasonableness of the contractor's maximum cost estimate. On April 1, 1976, the Chairman forwarded this letter to the then Chairman of the Joint Rules Committee. The Auditor General later met with a representative of the Joint Rules Committee and discussed these concerns. Independent estimators were hired to analyze the GMSS. The Auditor General has not been directed to make any audits of the project other than to assist the Legislative Analyst with this report.

G. Cost Saving Incentive

The cost sharing formula applicable to savings below the GMSS lessens the contractor's incentive to reduce costs. The December 18, 1975 contract provides that the contractor shall submit a maximum cost estimate (the GMSS) which is subject to periodic

adjustments. Costs incurred in excess of the GMSS will not be reimbursed. If cost savings (amounts less than the GMSS) are achieved, the contractor and the State shall share the savings according to the following table:

<u>Savings Below the GMSS</u>		<u>Sharing Formula</u>	
		<u>Contractor</u>	<u>State</u>
first	\$300,000	33-1/3%	66-2/3%
second	300,000	30%	70%
third	300,000	25%	75%
fourth	300,000 and above	20%	80%

The Auditor General's March 1976 letter indicated that the incentive to exert greater cost control should increase rather than decrease because of the increasing difficulty to reduce costs below a given level. Had the incentive formula been reversed, it may have significantly encouraged the contractor to achieve optimum cost savings. To illustrate the effect of an increasing cost incentive, the following presents the existing formula and the reversed formula.

		<u>Existing Formula</u>	
<u>Savings Below the GMSS</u>		<u>Payment to Contractor</u>	<u>Savings to State</u>
first	\$300,000	\$100,000 (33-1/3%)	\$200,000 (66-2/3%)
second	300,000	90,000 (30%)	210,000 (70%)
third	300,000	75,000 (25%)	225,000 (75%)
fourth	<u>300,000</u> and above	<u>60,000</u> (20%)	<u>240,000</u> (80%)
	<u>\$1,200,000</u>	<u>\$325,000</u>	<u>\$875,000</u>

Reversed Formula

<u>Savings Below the GMSS</u>		<u>Payment to Contractor</u>	<u>Savings to State</u>
first	\$ 300,000	\$ 60,000 (20%)	\$240,000 (80%)
second	300,000	75,000 (25%)	225,000 (75%)
third	300,000	90,000 (30%)	210,000 (70%)
fourth	<u>300,000 and above</u>	<u>100,000 (33-1/3%)</u>	<u>200,000 (66-2/3%)</u>
	<u>\$1,200,000</u>	<u>\$325,000</u>	<u>\$875,000</u>

If \$1,200,000 cost savings are achieved, the State's overall cost and the contractor's payment will remain the same in either case; however, in the reverse formula illustration the contractor has more incentive to achieve at least \$1,200,000 savings. Moreover, if the contractor was unable to achieve cost savings greater than, for example, the first level, the State would realize a higher rate of savings. This would be true up to \$1,200,000 of savings, as the following comparison of cumulative savings for each cost savings level shows:

<u>Savings Below the GMSS</u>	<u>Cumulative Savings To State</u>		
	<u>Existing Formula</u>	<u>Reversed Formula</u>	<u>State Benefit</u>
first \$300,000	\$200,000	\$240,000	\$40,000
second 300,000	410,000	465,000	55,000
third 300,000	635,000	675,000	40,000
fourth 300,000 and above	875,000	875,000	-0-

If the contractor saves more than \$1,200,000 the State would gain from the existing formula. If the contractor has savings of one, two or three million dollars on the GMSS, the State's share of savings would be as follows:

<u>Savings Below the GMSS</u>	<u>Cumulative Savings To State</u>		
	<u>Existing Formula</u>	<u>Reversed Formula</u>	<u>State Benefit</u>
\$1,000,000	\$ 715,000	\$ 741,667	\$ 26,667
2,000,000	1,515,000	1,408,333	(106,667)
3,000,000	2,315,000	2,075,000	(240,000)

In the March 1976 letter to the Chairman of the Joint Legislative Audit Committee we recommended that the State perform an in-depth analysis of the reasonableness of the contractor's GMSS. We cautioned that this was necessary to assure that the profit incentive provisions of the contract are achieved on the basis of contractor cost consciousness rather than an overstated or unsubstantiated GMSS cost estimate. The latter circumstance provides incentive payments which are windfall in nature.

The owner's representative stated that the existing formula was selected because the negotiating team felt that the contractor's past record was one of constantly seeking out profits; they relied on the contractor's ability to reduce costs through constant reevaluation of the project.

H. State Options to Discontinue
the Contractor's Work

The contract provides that the contractor shall prepare a "preliminary cost estimate" and a "control cost estimate." Upon completion and receipt of the preliminary cost estimate, and again upon completion and receipt of the control cost estimate, the owner has the option of discontinuing the contractor's work. The contract provides that upon written notification of such decision by the owner, the contractor shall cease all work except as mutually agreed, and shall receive reimbursement of costs, that portion of his \$1,650,000 fee earned to date, plus 50 percent of the balance of the unearned fee.

The Preliminary Cost Estimate

The preliminary cost estimate for the entire project is based on the design development documents prepared by the architect and approved by the owner. The estimate must be submitted to the owner within 45 days after the owner has given the contractor the design development documents.

In June 1976, the owner's representative approved for payment the architect's invoice for preparing the design development documents. The State did not receive the contractor's preliminary cost estimate until March 25, 1977, nine months after the design development documents were completed. By March 1977, the contractor's work on the structure was well underway.

Several reasons were given for the late estimates. The owner's representative stated that although he approved the architect's invoice for payment, the design development documents were never formally submitted to the contractor. Therefore, according to the owner representative, the beginning of the 45-day period was never officially indicated. In a letter dated June 17, 1977, the contractor stated:

The single most significant fact to remember is that the PCE can only be made AFTER THE "SCOPE OF WORK" HAS BEEN DEFINED. Otherwise, it has no real meaning or value. Unfortunately, on this project the Design Development Documents as submitted last summer DID NOT COME CLOSE TO DEFINING THE "SCOPE OF WORK."

The Control Cost Estimate

The contract provides that the contractor shall prepare a control cost estimate for the entire project based on completed working drawings and specifications as prepared by the architect and approved by the owner. Such estimate shall be submitted to the owner within 45 days after the owner has given the contractor the completed working drawings and specifications.

As of July 15, 1977, the State had not received the contractor's control cost estimate. As of July 18, 1977, the State had neither received nor approved for payment the architect's invoice for the completed working drawings and specifications.

The owner's representative advised us that the State has not received the control cost estimate because he is still reviewing the architect's drawings and making minor changes to them and because the lawsuit (described on page 4) has resulted in an informal suspension of the subcontract awards. He stated that the contract was intended to allow the contractor 45 days to get bids to prepare a control cost estimate. Although the option was never seriously considered, the absence of a timely preliminary cost estimate and a control cost estimate may have diminished the Joint Rules Committee's opportunity to discontinue the contractor's work.

If the Committee discontinued the contractor's work, there would be an array of new alternatives. The net costs of these alternatives to the State in terms of delay, structure, safety and money cannot readily be determined. The costs and delays could only be determined if the alternatives were defined and competitive procedures used.